

4. (Amended) The method of claim 1, wherein in the paradigm, the subjects having differential levels of insulin sensitivity comprise normal subjects and insulin resistant subjects.

a'

5. (Amended) The method of claim 1, wherein in the paradigm the subjects having differential levels of insulin sensitivity comprise normal subjects and abnormally insulin sensitive subjects.

7. (Amended) The method of claim 1, wherein the relevant tissue is liver, skeletal muscle, white or brown adipose tissue.

a<sup>2</sup>

8. (Amended) The method of claim 1, wherein in the paradigm, the subjects having differential levels of protein expression comprise:

- (a) comparatively insulin sensitive subjects and insulin resistant subjects; and,
- (b) insulin resistant subjects which have not been treated with the agent and insulin resistant subjects which have been treated with the agent.

a<sup>3</sup>

10. (Amended) The method of claim 1, wherein in the paradigm, the subjects having differential levels of protein expression comprise:

- Q<sup>3</sup>
- (a) comparatively insulin sensitive subjects who have and have not been treated with the agent; and,
  - (b) insulin resistant subjects who have and have not been treated with the agent.
- 

- Q<sup>4</sup>
12. (Amended) The method of claim 8, wherein the comparatively insulin sensitive subjects are normal subjects or abnormally insulin sensitive subjects.
- 

- Q<sup>5</sup>
14. (Amended) The method of claim 1, wherein in the paradigm the insulin-resistant subjects are animals which are insulin-resistant as a result of genetic mutation, and the normal subjects are normal control animals.
- 

- Q<sup>6</sup>
16. (Amended) The method of claim 1, wherein the paradigm is established in tissue from, or representative of, animals which are insulin-resistant as a result of diet, and the normal subjects are normal control animals.
- 

17. (Amended) The method of claim 1, wherein in the paradigm the normal and insulin resistant subjects are animals which are insulin-sensitive on a natural diet, but develop insulin resistance when given an unnatural, laboratory diet.

A<sup>6</sup>  
18. (Amended) The method of claim 1, wherein in the paradigm the treatment to increase the level of insulin sensitivity comprises treatment with an insulin-sensitising drug.

---

22. (Amended) The method of claim 1, wherein in the paradigm the treatment to increase the level of insulin sensitivity comprises dietary restriction and/or exercise.

23. (Amended) The method of claim 1, wherein the sample obtained is taken from or is representative of a subject suffering from non-insulin dependent diabetes.

A<sup>7</sup>  
24. (Amended) The method of claim 1, wherein the sample is taken from or is representative of a subject suffering from polycystic ovary syndrome, syndrome X, insulin resistance syndrome or type I diabetes.

25. (Amended) The method of claim 1, wherein the paradigm is established by two-dimensional gel electrophoresis carried out on the relevant tissue or a protein-containing extract thereof.

26. (Amended) The method of claim 1, wherein the expression of the differentially expressed protein is determined by two-dimensional gel electrophoresis carried out on the sample or a protein-containing extract thereof.

Q<sup>7</sup> 27. (Amended) The method of claim 1, further comprising the step of isolating a differentially expressed protein identified in the method.

---

Q<sup>8</sup> 29. (Amended) The method of claim 1, wherein the differentially expressed protein or proteins comprises one or more of LOM16, LOM17, LOM18, LOMT19, LOM20, LOMT21, LOMT22, LOMT23, LOMT24, LOMT25, LOMT26, LOM27, LOM28, LOM29 or LSEM30, MOM31, MOM32, MOM33, MOMT34, MOMT35, MOM36, WOMT37, WOM38, WOMT39, WOM40, WOM41, WOMT42, WOM43, WOM46, WOM47, WOMT48, WOMT49, WOMT50, WOM51 to 55, WOM57 to 64, WSEM65, BOM66, BOM67, BOMT68, BOM69 to 75, BOMT76 or BOM77.

---

32. (Amended) The method of claim 1, wherein the agents or proteins are screened using a high throughput screening method.

---

Q<sup>9</sup> 33. (Amended) A method of making a pharmaceutical composition which comprises having identified an agent using the method ✓ of claim 1, the further step of manufacturing the agent and formulating it with an acceptable carrier to provide the pharmaceutical composition.

---

Q<sup>10</sup> 38. (Amended) A method of treating a condition characterised by insulin resistance in a patient, the method comprising administering a therapeutically or prophylactically

Q<sup>10</sup>  
effective amount of such an agent identified by a method of  
✓ claim 1 to the patient.

---

41. (Amended) The method of claim 39, wherein in the paradigm the subjects having differential levels of insulin sensitivity comprise normal subjects and insulin resistant subjects.

Q<sup>11</sup>  
42. (Amended) The method of claim 39, wherein the subjects having differential levels of insulin sensitivity comprise normal subjects and subjects having abnormally high insulin sensitivity.

43. (Amended) The method of claim 39, which further comprises determining an effective therapy for treating the abnormality.

44. (Amended) The method of claim 39, wherein the sample is taken from a patient undergoing treatment for the insulin resistance and wherein the method further comprises monitoring the treatment.

---

Q<sup>12</sup>  
52. (Amended) A method whereby the pattern of differentially expressed proteins in a tissue sample or body fluid sample of an individual with insulin resistance is used to predict the most appropriate and effective therapy to alleviate the